

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-118. (*cancelled*)

119. (*currently amended*) A recombinant or synthetic polynucleotide encoding a protein that comprises an amino acid sequence at least 60% identical to SEQ. ID NO:118 when the entire sequence of said protein is optimally aligned with SEQ ID NO:118, and ~~that comprises~~ each of the following structures in the order amino terminus-(f)-(a)-(b)-(c)-(d)-(e)-carboxy terminus:

- a) X₃-Arg-X₂-Pro-Lys-X₃ (SEQ. ID NO:139)
- b) X-Arg-X-Ile-X (SEQ. ID NO:143)
- c) X₄-Phe-X₃-Asp-X₄-Tyr-Asp-X₂ (SEQ. ID NO:144)
- d) Tyr-X₄-Gly-X₂-Gln-Gly-X₃-Ser-X₈ (SEQ. ID NO:146)
- e) X₆-Asp-Asp-X-Leu-X₃ (SEQ. ID NO:147) ; and
- f) either: Trp-R₁-X₇-R₁-R₁-R₂-X-Phe-Phe-Tyr-X-Thr-Glu-X₈-R₃-R₃-Arg-R₄-X₂-Trp (SEQ. ID NO:16), or: Trp-R₁-X₇-R₁-R₁-R₂-X-Phe-Phe-Tyr-X-Thr-Glu-X₉-R₃-R₃-Arg-R₄-X₂-Trp (SEQ. ID NO:17);

wherein R₁ is Leu or Ile; R₂ is Gln or Arg; R₃ is Phe or Tyr; R₄ is Lys or His, X represents an unspecified amino acid and X_n represents the number n of consecutive unspecified amino acids; and wherein the protein has telomerase catalytic activity when complexed with a telomerase RNA component.

120-126. (*cancelled*)

127. (*withdrawn*) A method for increasing proliferative capacity of a cell of a vertebrate species, comprising expressing the polynucleotide of claim 119 in the cell in vitro.